

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims (deleted text being struck through and added text being underlined):

1. (Canceled)
2. (Canceled)
3. (Previously presented) A suspension system for a motorcycle comprising:
 - a. a motorcycle main frame;
 - b. a swing arm pivotally mounted to the motorcycle main frame about a pivot axis;
 - c. at least one air-bag suspension system, the air-bag suspension system forming a shock absorber which includes at least one air-bag constructed of an elastomeric material, the air-bag is housed within a housing assembly and is secured at one end to a piston located within the housing assembly and is secured at an other end to an upper plate or end cap of the housing assembly; and,
 - d. the shock absorber is attached at a forward end to the motorcycle main frame and is pivotally attached at a rearward end to a lower transverse cross member of the swing arm.

4. (Currently Amended) A suspension system for a motorcycle comprising:

a motorcycle main frame;

a swing arm pivotally mounted to the motorcycle main frame about a pivot axis;

at least one air-bag suspension system, the air-bag suspension system including a shock absorber which includes at least one air-bag constructed of an elastomeric material, the air-bag is housed within a housing assembly and is secured at one end to a piston located within the housing assembly and at an other end to an end cap of the housing assembly such that the piston, the end cap, and the air bag ~~collective~~ collectively define an air chamber within the housing for receiving and retaining air; and

the shock absorber is attached at a forward end to the motorcycle main frame and is pivotally attached at a rearward end to a lower transverse cross member of the swing arm.

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Previously presented) The motorcycle of claim 4, wherein the air-bag suspension member includes air.

9. (Original) The motorcycle of claim 8, wherein the air included in the air-bag suspension member is pressurized.

10. (Previously presented) The motorcycle of claim 9, wherein a degree of pressurization of the pressurized air in the air-bag suspension member is adjustable.

11. (Previously presented) The motorcycle of claim 10, wherein adjustment of the degree of pressurization of the pressurized air in the air-bag suspension member alters ride height of the motorcycle.

12. (Previously Presented) The motorcycle of claim 8, wherein the air-bag suspension member is characterized by a support spring force which is a function of compression stroke.

13. (Previously Presented) The motorcycle of claim 12, wherein the support spring force is a progressive function of compression stroke.

14. (Previously Presented) The motorcycle of claim 13, wherein the support spring force is an exponential function of compression stroke.

15. (Previously Presented) The motorcycle of claim 14, wherein the air in the air-bag suspension member can be pressurized to alter the support spring force function of compression stroke.

16. (Previously Presented) The motorcycle of claim 15, wherein increasing air pressure in the air-bag suspension member increases the progressive function of support spring force to compression stroke.

17. (Currently Amended) An air-bag suspension for replacement of a stock coil spring suspension in a soft tail type motorcycle characterized by a motorcycle main frame with a cross member plate and a swing arm, the swing arm pivotably attached to the motorcycle frame and having a transverse cross member, the stock coil spring suspension having a forward end attached to the cross member plate and a rearward end pivotably attached to the transverse cross member, the air-bag suspension for replacement of a stock coil spring suspension comprising:

a. at least one air-bag constructed of elastomeric material, the air-bag having a first end and a second end;

b. a housing assembly with an end cap, the housing assembly enclosing the air-bag, and the first end of the air-bag secured to a piston located within the housing assembly and the second end of the air-bag secured to the end cap such that the piston, the end cap, and the air bag collectively define an air chamber within the housing; and,

c. a shock absorber, the shock absorber having a forward end and a rearward end, the shock absorber attached to the housing assembly and the shock absorber attachable at the forward end to the cross member plate of a motorcycle main frame and pivotably attachable at the rearward end to the transverse cross member of the swing arm.

18. (Previously presented) The air-bag suspension of claim 17, the stock coil spring suspension is characterized by a spring force which is a linear function of shock stroke.

19. (Previously Presented) The air-bag suspension of claim 18, wherein the air-bag suspension is characterized by a spring force which is a progressive function of shock stroke.

20. (Previously Presented) The air-bag suspension of claim 17, wherein the air-bag suspension includes air.

21. (Previously Presented) The air-bag suspension of claim 20, wherein the air included in the air-bag suspension is pressurized.

22. (Previously Presented) The air-bag suspension of claim 21, wherein the pressurized air in the air-bag member is adjustable.

23. (Previously Presented) The air-bag suspension of claim 22, wherein adjustment of the adjustable pressurized air in the air-bag suspension alters ride height of a motorcycle employing the air-bag suspension.

24. (Previously Presented) The air-bag suspension of claim 20, wherein the air-bag suspension is characterized by a support spring force which is a function of compression stroke.

25. (Previously Presented) The air-bag suspension of claim 24, wherein the support spring force is a progressive function of compression stroke.

26. (Previously Presented) The air-bag suspension of claim 25, wherein the support spring force is an exponential function of compression stroke.

27. (Previously Presented) The air-bag suspension of claim 26, wherein the air in the air-bag suspension member can be pressurized to alter the support spring force function of compression stroke.

28. (Previously Presented) The air-bag suspension of claim 27, wherein increasing air pressure in the air-bag suspension increases the progressive function of support spring force to compression stroke.

29. (Previously presented) The air-bag suspension of claim 17, wherein the air-bag replaces a stock coil spring suspension.

30. (Currently Amended} The air-bag suspension ~~pair~~ of claim ~~29~~
17, wherein the ~~pair are~~ air-bag is connected to an air compressor.

31. (Currently Amended) In a soft tail type motorcycle, the improvement comprising [[[a]]] replacing the stock coil spring suspension with an air-bag suspension, the air bag suspension including a housing with an interior, a piston movable in the interior of the housing, an air bag positioned in the interior of the housing, the air bag being securely attached to an interior of the housing and to the piston to define an air chamber.

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

~~38~~32. (Currently Amended) A suspension device for connecting to a frame of a vehicle and a swing arm on which a wheel of the vehicle is mounted, the suspension device comprising:

a housing defining an interior;

a shock absorber mounted on the housing, the shock absorber including a rod movably mounted on the housing such that at least a portion of the rod extends into the interior of the housing and through the housing;

a piston positioned in the interior of the housing and being mounted on the rod of the shock absorber to move with the rod;

an air-bag positioned within the interior of the housing, the air bag being constructed of elastomeric material, the air-bag having a first end mounted on the housing in the interior of the housing and a second end

mounted on the piston ~~and a second end~~ such that the piston, the housing, and the air bag collectively define an air chamber within the housing.

3933. (Currently Amended) The suspension device of claim [[[32]]] 38 wherein the air bag includes a perimeter wall with a pair of opposite ends, a first one of the opposite ends of the perimeter wall being mounted on the housing and a second one of the opposite ends of the perimeter wall being mounted on the piston.

4034. (Currently Amended) The suspension device of claim [[[33]]] 39 wherein each of the opposite ends of the perimeter wall includes a perimeter flange defining an opening, the perimeter flange at a first one of the opposite ends being secured to the housing and the perimeter flange at a second one of the opposite ends being secured to the piston.

4135. (Currently Amended) The suspension device of claim [[[33]]] 39 wherein each of the opposite ends of the perimeter wall define an opening, a first one of the openings of the perimeter wall receiving a portion of an end cap of the housing and a second one of the openings of the perimeter wall receiving a portion of the piston.

4236 (Currently Amended) The suspension device of claim [[[35]]] 41 wherein the end cap seals the opening in the first end of the perimeter wall and the piston seals the opening in the second end of the perimeter wall.

4337. (Currently Amended) The suspension device of claim [[[32]]] 38 wherein the shock absorber includes a hydraulic piston and cylinder assembly, the cylinder of the shock absorber being mounted on the housing and the piston of the shock absorber being mounted on the rod, the rod being configured to mount on one element of the frame and the swing arm and the cylinder being configured to mount on the other element of the frame and the swing arm.

44. (New) The suspension device of claim 38 wherein the housing surrounds the air-bag.

45. (New) The suspension device of claim 38 wherein the housing completely encloses the air-bag.

46. (New) The suspension device of claim 38 wherein the housing abuts against substantially an entire circumference and substantially an entire length of the air-bag when the air-bag is fully extended.

47. (New) The suspension device of claim 38 wherein the housing extends along and about an entire extended length of the air-bag